What is claimed is:

1. A coating composition comprising:
at least one degradable layer; and
at least one layer of barrier coating,
wherein the at least one layer of barrier coating has a permeability to oxygen no greater than 10 grams per m^2 per day at a temperature of 900°F.

2. A coating composition according to claim 1, wherein the at least one layer of barrier coating is a single layer comprising one or more metal oxide materials selected from aluminum oxide, silicon oxide, and mixtures thereof.

3. A coating composition according to claim 2, wherein the at least one layer of barrier coating comprises a mixture, alloy, or combination of alumina and silica sputtered from a target comprising 60 weight percent aluminum and 40 weight percent silicon.

4. A coating composition according to claim 2 wherein the at least one layer of barrier coating has a thickness of up to 2 microns.

5. A coating composition according to claim 1 wherein the at least one layer of barrier coating is a multi-layer coating comprising a first layer selected from silica, alumina, and mixtures thereof, applied over a second layer selected from silica, alumina, and mixtures thereof.

6. A coating composition according to claim 1, wherein the at least one degradable layer is an electromagnetic radiation reflective material selected from gold, copper, silver, conductive nitride, and mixtures of.

7. A coating composition according to claim 6, wherein the at least one degradable layer is silver.

8. A coating composition according to claim 7, wherein the coating composition further comprises first and second layers of dielectric material and at least one layer of primer, and further wherein the degradable layer is on at least a portion of the first layer of dielectric material; the at least one layer of primer is on at least a portion of the degradable layer; the second layer of dielectric material is on at least a portion of the at least one layer of primer; and the at least one layer of barrier coating is on at least a portion of the second layer of dielectric material.

9. A coating composition according to claim 8 wherein the first and second layers of dielectric material are each selected from indium tin oxide, titanium oxide, zinc oxide, tin oxide and mixtures and alloys thereof.

10. A coating composition according to claim 8 wherein the first and second layers of dielectric material each have a thickness ranging from 100 Å to 800 Å.

11. A coating composition according to claim 8, wherein the layer of electromagnetic radiation reflective material has a thickness ranging from 50 Å to 300 Å.

12. A coating composition according to claim 8, wherein the at least one layer of primer has a thickness ranging from 10 Å to 30 Å.

13. A coating composition according to claim 12, wherein the at least one layer of primer is selected from titanium, copper, aluminum, niobium, yttrium, zirconium, hafnium, chromium, and mixtures and alloys thereof; nickel-chromium alloy; cobalt-chromium alloy; indium tin sub-oxide; titanium sub-oxide; zinc aluminum sub oxide; silicon nitride and mixtures thereof

14. A coating composition according to claim 6, wherein the degradable layer is a layer of conductive nitride.

15. A coating composition according to claim 14, wherein the coating composition further comprises a layer of transparent conductive oxide.

16. A coating composition according to claim 15, wherein the at least one degradable layer is on at least a portion of the layer of transparent conductive oxide and the at least one layer of barrier coating is on at least a portion of the at least one degradable layer.

17. A coating composition according to claim 15, wherein the layer of transparent, conductive oxide is on at least a portion of the at least one degradable layer and a layer of barrier coating is on at least a portion of the layer of transparent, conductive oxide.

18. A coating composition according to claim 16, wherein the transparent conductive oxide is selected from fluorine doped tin oxide, indium tin oxide, zinc aluminum oxide, and mixtures thereof.

19. A coating composition according to claim 16, wherein the layer of transparent, conductive oxide has a thickness ranging from 1 Å to 2500 Å.

20. A coating composition according to claim 16, wherein the layer of conductive nitride is selected titanium nitride, zirconium nitride, and mixtures thereof.

21. A coating composition according to claim 16, wherein the layer of conductive nitride has a thickness ranging from 10 Å to 500 Å.

22. A coating composition according to claim 16, wherein the at least one layer of barrier coating has a thickness of at least 100 Å.

23. A coated substrate comprising:

a substrate;

a coating composition on at least a portion of said substrate comprising:

at least one degradable layer; and

at least one layer of barrier coating,

wherein the layer of barrier coating has a permeability to oxygen no greater than 10 grams per m^2 per day at a temperature of 900°F.

24. A coated substrate according to claim 23, wherein the at least one layer of barrier coating is a single layer comprised of one or more metal oxide materials selected from aluminum oxide, silicon oxide, and mixtures thereof.

25. A coated substrate according to claim 24, wherein the at least one layer of barrier coating comprises a mixture, alloy, or combination of alumina and silica sputtered from a target comprising 60 weight percent aluminum and 40 weight percent silicon.

26. A coated substrate according to claim 23, wherein the layer of barrier coating has a thickness up to 2 microns.

27. A coated substrate according to claim 24, wherein the at least one degradable layer is an electromagnetic radiation reflective material selected from gold, copper, silver, conductive nitride, and mixtures thereof.

28. A coated substrate according to claim 27, wherein the at least one degradable layer is silver.

29. A coating substrate according to claim 27, wherein the coating composition further comprises first and second layers of dielectric material and at least one layer of primer and further wherein the first layer of dielectric material overlays at least a portion of the substrate, the at least one degradable layer overlays at least a portion of a first layer of dielectric material, the at least one layer of primer overlay at least a portion of the at least one degradable layer, the second layer of dielectric material overlays at least a portion of the at least one layer of primer, and the at least one layer of barrier coating overlays at least a portion of the second layer of dielectric material.

30. A coated substrate according to claim 29, wherein the first and second layers of dielectric material are each selected from indium oxide, titanium oxide, zinc oxide, tin oxide and mixtures and alloys thereof.

31. A coated substrate according to claim 29, wherein the first and second layers of dielectric material each have a thickness ranging from 100 Å to 800 Å.

32. A coated substrate according to claim 29, wherein the layer of electromagnetic radiation reflective material has a thickness ranging from 50 Å to 300 Å.

33. A coated substrate according to claim 29, wherein the at least one layer of primer has a thickness ranging from 10 Å to 30 Å.

34. A coated substrate according to claim 33, wherein the at least one layer of primer is selected from titanium, copper, aluminum, niobium, yttrium, zirconium, hafnium, chromium, mixtures and alloys thereof; nickel-chromium alloy; cobalt-chromium alloy; indium tin sub-oxide; titanium sub-oxide; zinc aluminum sub oxide; silicon nitride and mixtures thereof.

35. A coated substrate according to claim 27, wherein the at least one degradable layer is a layer of conductive nitride.

36. A coated substrate according to claim 35, wherein the coating composition further comprises a layer of transparent conductive oxide.

37. A coated substrate according to claim 36, wherein the at least one degradable layer overlays at least a portion of the layer of transparent conductive oxide and the at least one layer of barrier coating overlays at least a portion of the at least one degradable layer.

38. A coated substrate according to claim 37, wherein the transparent conductive oxide is selected from fluorine doped tin oxide, indium tin oxide, zinc aluminum oxide and mixtures thereof.

39. A coated substrate according to claim 37, wherein the layer of transparent conductive oxide has a thickness ranging from 1 Å to 2500 Å.

40. A coated substrate according to claim 36, wherein the layer of conductive nitride is selected from titanium nitride, zirconium nitride, and mixtures thereof.

41. A coated substrate according to claim 37, wherein the at least one degradable layer has a thickness ranging from 10 Å to 500 Å.

42. A coated substrate according to claim 37, wherein the at least one layer of barrier coating has a thickness of at least 100Å.

43. A coated substrate according to claim 23, wherein the substrate is selected from plastic, metal, ceramic, tile, glass, and combinations thereof.

44. A coated substrate according to claim 43, wherein the substrate is glass.

45. A coated substrate according to claim 44, wherein the glass is a ply an automotive transparency.

46. A coated substrate comprising:

a substrate;

a first layer of dielectric material comprising zinc stannate on the substrate;

a first degradable layer comprising silver on at least a portion of the first layer of dielectric material;

a first layer of primer comprising titania on at least a portion of the first degradable layer;

a second layer of dielectric material comprising zinc stannate applied on at least a portion of the first layer of primer;

a second degradable layer comprising silver on at least a portion of the second layer of dielectric material;

a second layer of primer comprising titania on at least a portion of the second degradable layer;

a third layer of dielectric material comprising zinc stannate on at least a portion of the second layer of primer;

a third degradable layer comprising silver on at least a portion of the third layer of dielectric material; and

a third layer of primer comprising titania on at least a portion of the third degradable layer;

a fourth layer of dielectric material comprising zinc stannate on at least a portion of the third layer of primer; and

a layer of barrier coating comprising a layer of barrier comprising a mixture, alloy, or combination of alumina and silica sputtered from a target

comprising 60 weight percent aluminum and 40 weight percent silicon on at least a portion of the fourth layer of dielectric material,

wherein the layer of barrier coating has a permeability to oxygen no greater than 10 grams per m^2 per day at a temperature of 900°F.

47. A coated substrate according to claim 46 wherein the first, second, third and fourth layers of dielectric material have a thickness ranging from 100 Å to 800 Å.

48. A coated substrate according to claim 46 wherein the first, second and third layers of primer have a thickness ranging from 10 Å to 18 Å.

49. A coated substrate according to claim 46 wherein the first, second and third degradable layers have a thickness ranging from 50 Å to 300 Å.

50. A method of forming a multilayered coated substrate, comprising:

applying a degradable coating layer on a substrate, and

applying a layer of barrier coating on the degradable coating layer, wherein the barrier coating layer has a permeability to oxygen of no greater than 10 grams per m^2 per day at a temperature of 900°F.

51. A method according to claim 50, further comprising applying additional coating layers on the degradable coating layer prior to applying the layer of barrier coating.

52. A method according to claim 50, further comprising applying an additional layer of barrier coating on the substrate prior to applying the degradable coating layer.

53. A method according to claim 50, wherein the layer of barrier coating is the last coating layer applied on the substrate.

54. A method according to claim 50, further comprising applying additional coating layers after applying the barrier coating layer.